U.S. Army Corps of Engineers, Baltimore District
Dredged Material Management Plan
for the Port of Baltimore

February 11, 2004 Presentation to the CAC

US Army Corps of Engineers, Baltimore District (CENAB) DMMP Goal

To develop a plan to maintain, in an economically and environmentally sound manner, channels necessary for navigation in the Port of Baltimore, conduct dredged material placement in the most environmentally sound manner, and maximize the use of dredged material as a beneficial resource.

CENAB DMMP– Why prepare a DMMP?

- Federal requirements
  - USACE responsible for maintenance dredging of federal channels, resulting in ~4.5M cy/year
  - USACE responsible (Engineering Regulation 1105-2-100) for preparing plan to manage new work & maintenance dredged material for next 20 years ~ 100M cubic yards
  - USACE responsible to determine environmental impacts of placement actions (NEPA EIS)

CENAB DMMP– Why prepare a DMMP?

- Preliminary Assessment – Sep 2001
  - Documented dredging needs for next 20 years
  - Documented shortfall in dredged material capacity within 8-10 years
  - Concluded insufficient time to develop new placement site(s) (~9-12 years)
  - Concluded existing sites will not be efficiently managed (overloading sites reduces capacity/increases costs)

CENAB DMMP– Port of Baltimore Maintenance Dredging

	Annual Maintenance (CY)
Virginia	500,000
Maryland (CENAB)	
50’ Project Approach	1,100,000
42’ Project Approach	900,000
Patapsco River & Inner Harbor	500,000
Non-Federal (excluding new work)	300,000
Maryland (CENAP)	
Southern approach to C&D Canal	1,200,000
Total Annual Maintenance	4,500,000

CENAB DMMP– How is it similar to State DMMP?

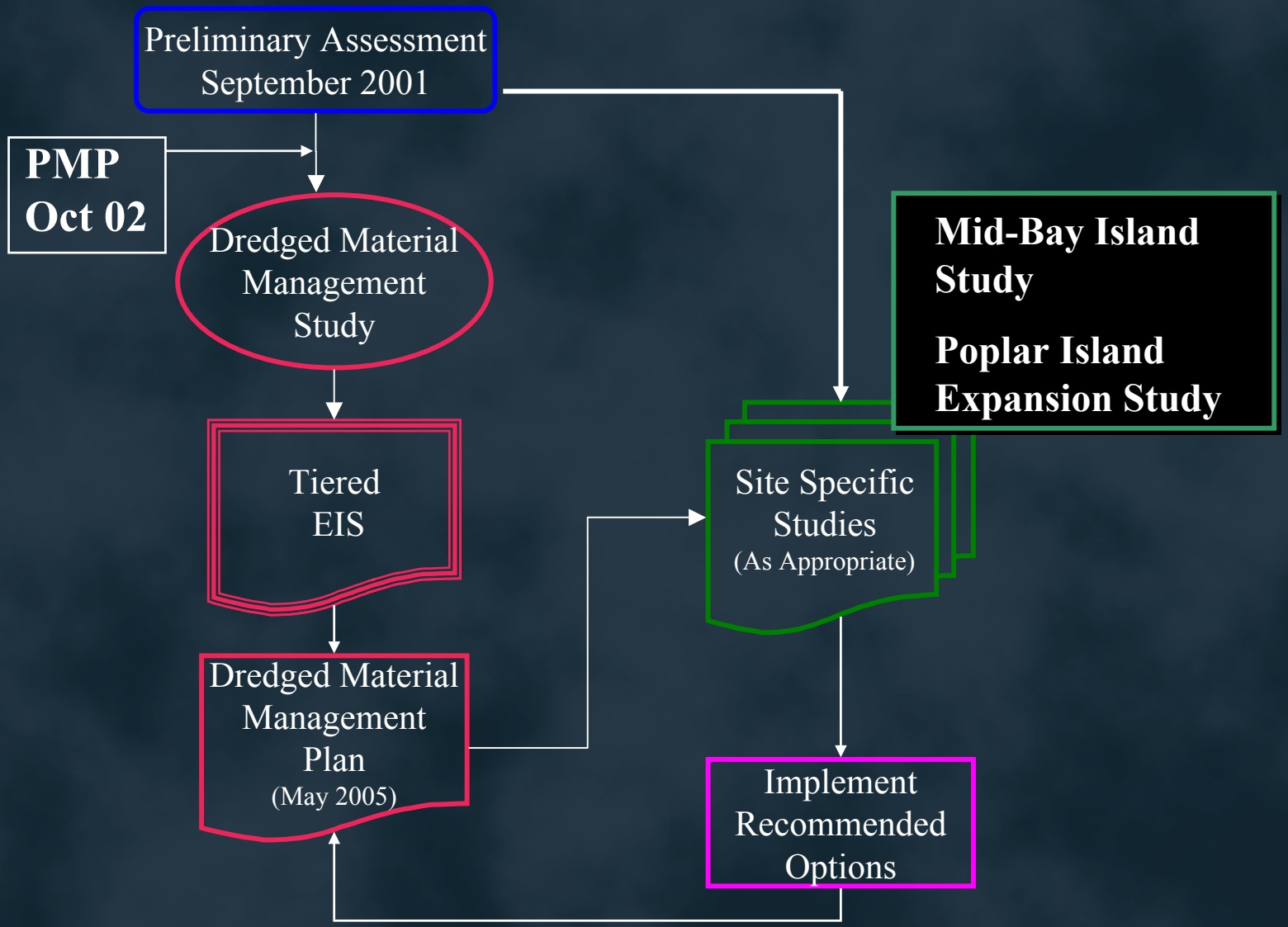
- Considers dredging needs over long term (20 years)
- Addresses Federal, State and Local dredging needs
- Beneficial use of material is a top priority
- Includes public and agency participation
- Utilizes State DMMP Committees

CENAB DMMP– How does it differ from State DMMP?

- NEPA evaluation required, including an EIS that can be used for subsequent Corps planning
- Tiered
- Programmatic
- Addresses Virginia Channels
- Evaluated from a national interest perspective (Includes an economic evaluation of continued maintenance dredging)
- Considers all reasonable alternatives

DMMP Geographic Area Boundaries

CENAB DMMP Process



CENAB DMMP Process – How is it Prepared?

- Includes input from numerous stakeholders:
  - Federal – US Army Corps of Engineers (Baltimore-CENAB, Philadelphia-CENAP, & Norfolk Districts-CENAO), EPA, NMFS, US FWS, etc.
  - State – MPA, MGS, MDE, MDNR, etc.
  - Public – BEWG, Citizens' Advisory Committee, Harbor Team, Community Groups, Private Citizens

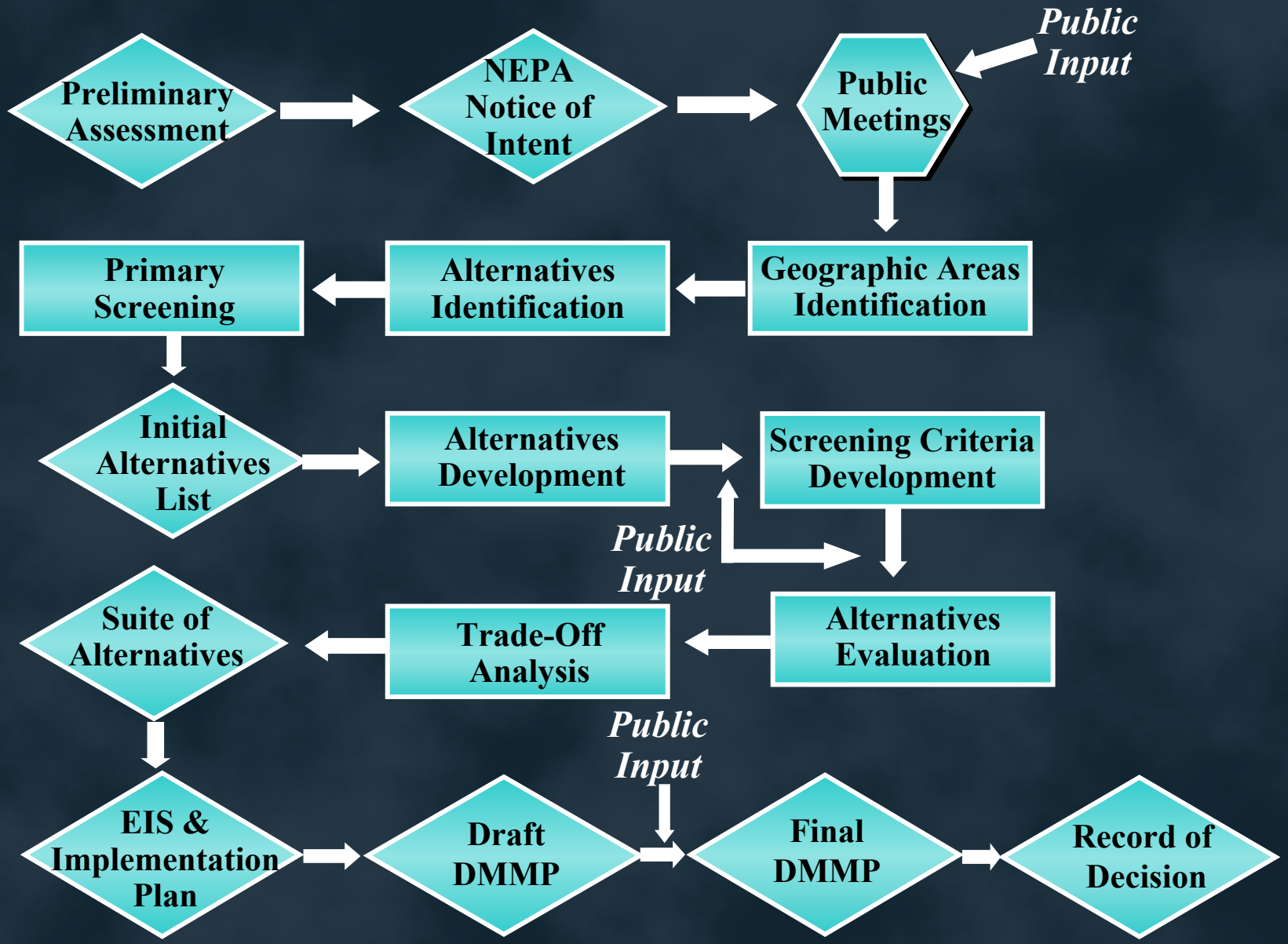
CENAB DMMP Process – How is it Prepared?

- Utilizes committees established by State DMMP Process
  - Executive Committee - created by and reports to the Governor & Legislature
  - Management Committee
  - Citizens' Advisory Committee
  - Harbor Team
  - Bay Enhancement Working Group

CENAB DMMP Process – Constraints

- Maryland State Laws
  - North Point/ Rock Point Line
  - Closing of Hart-Miller & Pooles Island Sites
  - Prohibition on Open Water Placement
  - 5-mile radius around Hart-Miller Island
- Bay Community / Environmental Constraints
  - No island creation
  - Spawning areas
  - Shallow water vs. Emergent Habitat

DMMP Study Flow Chart



Placement Alternatives Development

- Possible alternatives identified in each geographic areas
- Compiled the following information for each alternative
  - Relative Capacity
  - Relative Cost
  - Accessibility/Constructability
  - Operability
  - Impacts (Environmental, Recreational, Commercial, Residential, Regulatory, etc.)

Primary Level Alternatives Screening

- Eliminated alternatives that:
  - Were not reasonable (i.e., beach nourishment in northern bay)
  - Involved Locations outside the Chesapeake Bay Watershed Area

Placement Alternatives Definitions

- Existing Site Expansion/Optimization
  - Creation of additional capacity at existing placement sites by expanding the site either vertically or horizontally or by operational modifications
- Large Island Restoration
  - Restoration of a previously existing large island (> 200 acres) to a historic size and restoring habitat
- Small Island Restoration
  - Restoration of a previously existing small island (< 200 acres) to a historic size and restoring habitat

Placement Alternatives Definitions (cont'd)

- Artificial Island Creation
  - Creation of an island where none historically existed and creating habitat
- Wetlands Restoration
  - Restoration of a degraded wetland through the use of thin-layering or other techniques
- Shoreline Restoration
  - Restoration and/or protection of a degraded shoreline

Placement Alternatives Definitions (cont'd)

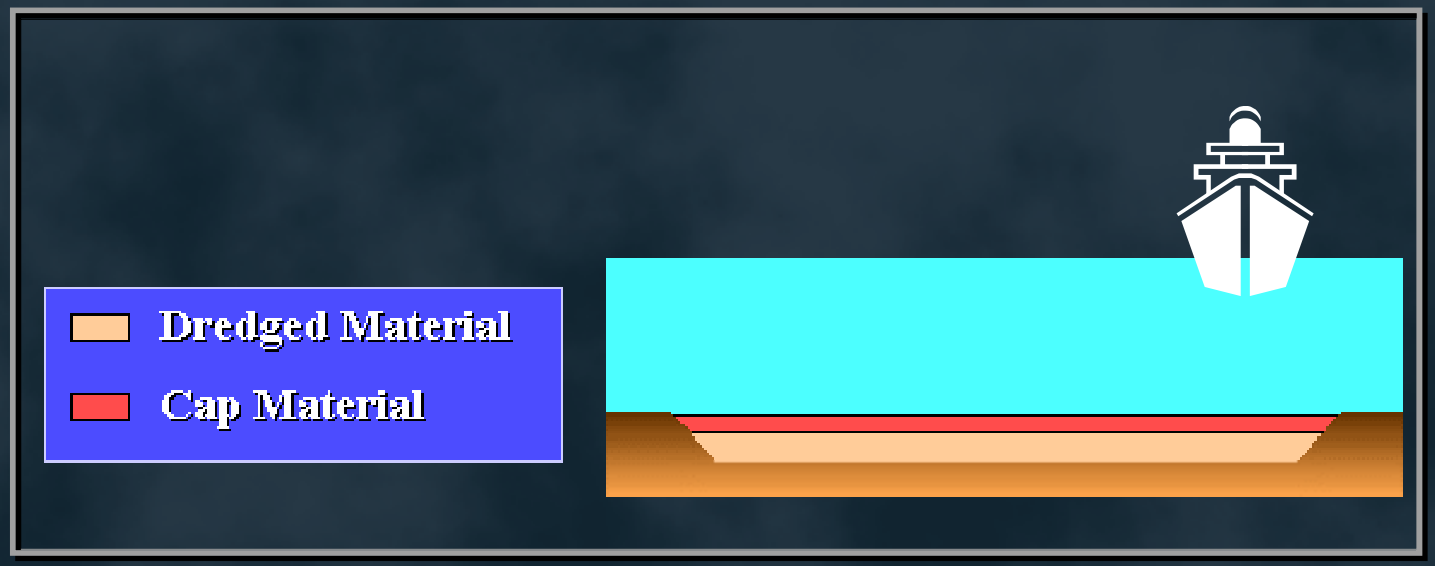
- Beach Nourishment
  - Use of dredged material to expand and/or enhance an existing beach to provide storm protection, recreation, etc.
- Agricultural Placement
  - Amendment of agricultural soils with dredged material to improve drainage and crop yield
- Mines and Quarries
  - Placement of dredged material for reclamation of mines or quarries

Placement Alternatives Definitions (cont'd)

- Capping
  - Use of dredged material to cap existing contaminated sites, either aquatic or landfills
- Building Products
  - Use of dredged material to create products such as bricks, aggregate, fill material, etc.
- Ocean/Open Water Placement
  - Placement of dredged material in open water sites in the Chesapeake Bay or in the Atlantic Ocean near the mouth of the Bay

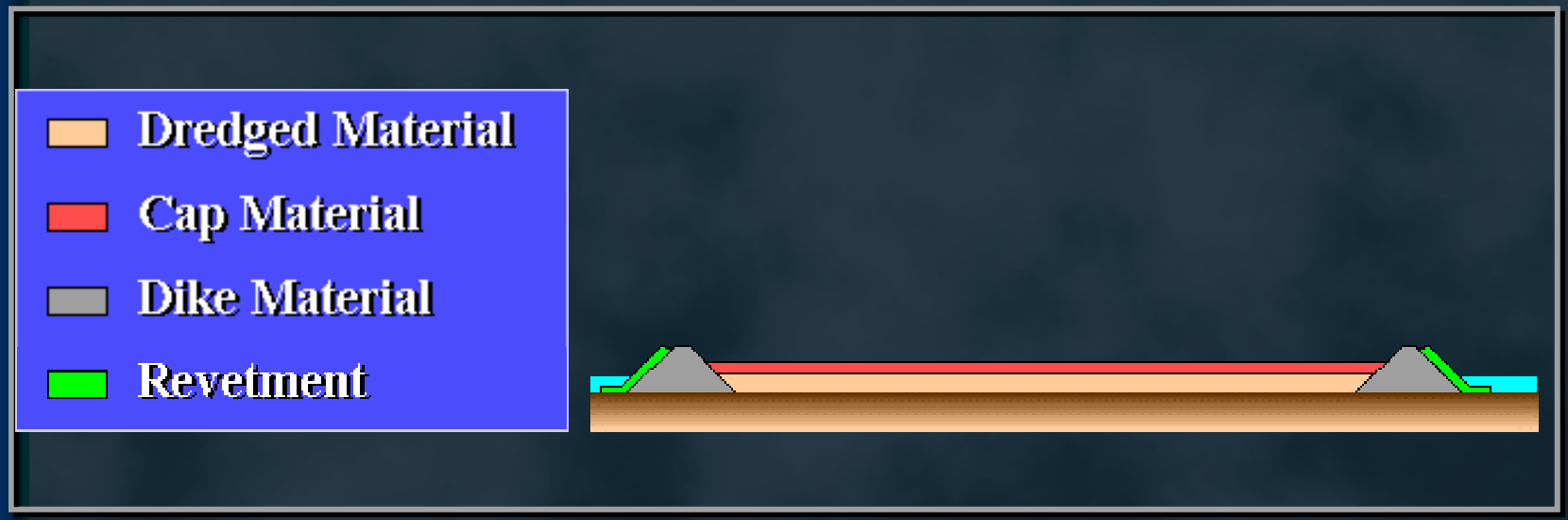
Placement Alternatives Definitions (cont'd)

- New Confined Aquatic Disposal (CAD) Site
  - Applicable to harbor material within the North Point-Rock Point Line
  - Creation of a new sub-aqueous confined disposal site in the bay for dredged material



Placement Alternatives Definitions (cont'd)

- New Confined Disposal Facility (CDF)
  - Creation of a new upland or aquatic confined disposal site for dredged material



Placement Alternatives Development Process

- Utilized ARC IMS to identify potential locations
- Applied constraints according to nature of alternative, such as
  - Infrastructure
  - Population Density
  - Land Use
  - Environmental Considerations
  - Etc.

DMMP Potential Alternatives

USACE Baltimore Harbor & Channels DMMP Alternatives	Harbor Channels	C&D Approach Channels	Ches Bay Approach (MD)	Ches Bay Approach (VA)
Agricultural Placement -- Maryland	■	■	■	
Agricultural Placement -- Virginia				■
Artificial Island Creation -- Lower Bay				■
Artificial Island Creation -- Upper Bay	■	■	■	
Beach Nourishment -- Virginia				■
Building Products	■	■	■	■
C&D Canal Upland Sites Expansion	■	■	■	
Capping -- Landfill/Brownfields	■	■	■	■
Capping -- Elizabeth River, VA				■
Capping -- Patapsco River, MD		■	■	
Confined Aquatic Disposal Area -- Patapsco River, MD	■			
Confined Disposal Facility -- Lower Bay				■
Confined Disposal Facility -- Patapsco River, MD	■	■	■	
Cox Creek Expansion	■			
Hart-Miller Island Expansion	■	■	■	
Large Island Restoration -- Lower Bay				■
Large Island Restoration -- Mid Bay	■	■	■	

DMMP Potential Alternatives

USACE Baltimore Harbor & Channels DMMP Alternatives	Harbor Channels	C&D Approach Channels	Ches Bay Approach (MD)	Ches Bay Approach (VA)
Mine Placement -- Cecil County, MD	■	■	■	
Mine Placement -- Western Maryland	■	■	■	
Norfolk Ocean Open Water Placement		■	■	■
Pooles Island Open Water Site Expansion		■	■	
Poplar Island Expansion		■	■	
Rappahannock Shoal Open Water Site Expansion		■	■	■
Shoreline Restoration -- Lower Bay				■
Shoreline Restoration -- Mid Bay	■	■	■	
Shoreline Restoration -- Upper Bay	■	■	■	
Small Island Restoration -- Lower Bay				■
Small Island Restoration -- Mid Bay	■	■	■	
Wetlands Restoration -- Dorchester County, MD	■	■	■	
Dam Neck Ocean Open Water Placement (Existing)				BASE
Hart-Miller Island (Existing)	BASE	■	■	
New Open Water Placement -- Mid Bay (Deep Trough)		■	BASE	
Pooles Island Open Water Site (Existing)		BASE		
Rappahannock Shoal Open Water Site (Existing)		■	■	BASE
Wolf Trap Open Water Placement (Existing)		■	■	BASE

Screening Criteria Approach

- Each Alternative will be screened for
  - Environmental Factors using the BEWG Criteria
  - Technical Feasibility
  - Cost
  - Capacity
  - Time to achieve Environmental Benefit
  - Risk

Schedule

- Receive comments on Alternatives Presentation from CAC — 3 Mar 04
- Screening Evaluation for BEWG — Mar 04
- Screening Evaluation for CAC — Apr 04
- Draft DMMP & Tiered EIS — Oct 04
- Final DMMP & Tiered EIS — Apr 05
- Record of Decision — May/Jun 05

CENAB DMMP - POC's

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CENAB DMMP

For additional information visit the CENAB DMMP Website:

www.nab.usace.army.mil/projects/MARYLAND/DMMP/index.htm

To request information or inclusion on the mailing list, email request to:

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